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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/10/2001

Toshio Sakurai

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

MILIA, MARK R

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/973,058	Applicant(s) SAKURAI, TOSHIO	
	Examiner Mark R. Milia	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/9/08 has been entered. Currently, claims 1-10 are pending.

Response to Arguments

2. Applicant's arguments filed 7/9/08 have been fully considered but they are not persuasive.

Applicant asserts that the applied art, mainly Wakasugi (US 5,961,616) does not disclose or suggest at least the features of a second circuit for determining whether information fetched by a first circuit is the same as information fetched by the first circuit a previous time, wherein the second circuit does not output the fetched information if it is determined that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, thereby skipping the information not matching with a predetermined protocol, and wherein the second circuit does output

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the fetched information if it is determined that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time. The examiner respectfully disagrees as Wakasugi does disclose such features. Particularly, Wakasugi states that data changes occur and are monitored to see if they are normal data changes or if noise is present (see column 12 lines 14-27). A data buffer is used to store previously transferred data **D0** to **D7** and is compared to current transferred data **D0** to **D7** to determine coincidence and ultimately if the data change is “normal” or “spike noise” (see column 11 lines 32-55). Fig. 12 shows that the system of Wakasugi allows “normal” data changes to occur but eliminates “spike noise” data changes, all of which is analogous to the second circuit of the instant invention. Thereby, only data that matches a predetermined protocol is allowed to be output. Thus Wakasugi discloses a second circuit for determining whether information fetched by a first circuit is the same as information fetched by the first circuit a previous time, wherein the second circuit does not output the fetched information if it is determined that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, thereby skipping the information not matching with a predetermined protocol, and wherein the second circuit does output the fetched information if it is determined that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time.

Therefore, the rejection of claims 1-10 is maintained.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 2, 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakasugi (US 5,961,616).

Regarding claims 1 and 6, Wakasugi discloses an interface apparatus and information processing method to which information is input from an external apparatus according to a predetermined protocol which does not continuously transmit the same information comprising: a first circuit for waiting until a predetermined time has elapsed from a time when the information input from the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus (see Figs. 10-12 and column 10 lines 42-46, column 11 lines 17-47, and column 12 lines 60-63) and a second circuit for determining whether the information fetched by the first circuit is the same as information fetched by the first circuit a previous time, wherein the second circuit does not output the fetched information if it is determined that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, thereby skipping the information not matching with the predetermined protocol, and wherein the second circuit does output the fetched information if it is determined that the information fetched by the first circuit

is not the same as the information fetched by the first circuit the previous time (see Figs. 7-12 and column 9 line 40-column 13 line 4).

Regarding claims 2 and 7, Wakasugi further discloses a data change detector for outputting a reset in the case where there is a change in the information input from the external apparatus (see Fig. 10 (10) and column 3 line 65-column 4 line 10), a timer for inputting the reset output by the change detector and outputting a trigger after the elapse of a predetermined time from the input of the reset (see Fig. 12 and column 12 lines 14-65), a data latch for inputting the trigger output by said timer and fetching the information input from the external apparatus in accordance with the input of the trigger (see Fig. 10, column 9 lines 40-63, and column 10 line 61-column 11 line 16).

Regarding claim 4, Wakasugi further discloses wherein the information which is inputted from the external apparatus is inputted to the first circuit and the information fetched by said first circuit is input to the second circuit (see Fig. 10 and column 11 line 17-column 12 line 65).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi in view of Motoyama (US 5,818,603).

Wakasugi discloses a first circuit for waiting until a predetermined time has elapsed from a time when information input from the external apparatus has changed, and after the predetermined time has elapsed from the time when the information input from the external apparatus has changed, fetching the information input from the external apparatus (see Figs. 10-12 and column 10 lines 42-46, column 11 lines 17-47, and column 12 lines 60-63) and a second circuit for determining whether the information fetched by the first circuit is the same as information fetched by the first circuit a previous time, wherein the second circuit does not output the fetched information if it is determined that the information fetched by the first circuit is the same as the information fetched by the first circuit the previous time, thereby skipping the information not matching with the predetermined protocol, and wherein the second circuit does output the fetched information if it is determined that the information fetched by the first circuit is not the same as the information fetched by the first circuit the previous time (see Figs. 7-12 and column 9 line 40-column 13 line 4).

Wakasugi does not disclose expressly a printer engine for printing the information output by the second circuit.

Motoyama discloses a printer engine for printing the information output by the second circuit (see Fig. 1, column 3 lines 56-57, column 7 lines 33-49, and column 8 lines 36-44).

Wakasugi & Motoyama are combinable because they are from the same field of endeavor, data monitoring and transmission.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a printer engine for printing, as described by Motoyama, with the system of Wakasugi.

The suggestion/motivation for doing so would have been to ensure the ability to properly communicate data between a host apparatus and an output device (i.e. printer) by eliminating noise from the transferred data.

Therefore, it would have been obvious to combine Motoyama with Wakasugi to obtain the invention as specified in claims 5 and 10.

7. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi as applied to claims 1 and 6 above, and further in view of Motoyama.

Wakasugi does not disclose expressly wherein the external apparatus forms information such that information is non-continuous information.

Motoyama discloses wherein the external apparatus forms information such that information is non-continuous information (see column 4 lines 15-19, column 6 line 63-column 7 line 3, column 7 line 24-column 8 line 44, and column 11 lines 6-49).

Wakasugi & Motoyama are combinable because they are from the same field of endeavor, data monitoring and transmission.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine non-continuous transfer of information, as described by Motoyama, and which is well known in the art of printing, with the system of Wakasugi.

The suggestion/motivation for doing so would have been to ensure the ability to properly communicate data between a host apparatus and an output device (i.e. printer) by eliminating noise from the transferred data.

Therefore, it would have been obvious to combine Motoyama with Wakasugi to obtain the invention as specified in claims 3 and 8.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakasugi as applied to claim 6 above, and further in view of Chapman (US 6,175,603).

Wakasugi discloses the use of logic and logic filters in the execution of the invention (see column 11 line 17-column 12 line 65).

Wakasugi does not disclose expressly wherein the first step is executed by a glitch noise filter.

Chapman discloses the use of glitch noise filters to filter data information (see column 1 lines 36-59 and column 7 lines 44-53).

Wakasugi & Chapman are combinable because they are from the same field of endeavor, detection and processing of changes in transmitted information.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of a glitch noise filter as described by Chapman with the system of Wakasugi.

The suggestion/motivation for doing so would have been to accurately filter noise signals from incoming information.

Therefore, it would have been obvious to combine Chapman with Wakasugi to obtain the invention as specified in claim 9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

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/Mark R. Milia/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625